Process: Training Program (TP) Phase: Global

Process Owner: SSC San Diego SEPO

Description: This process describes training within SSC San Diego to ensure that individuals receive adequate and appropriate training to perform their jobs. SSC San Diego provides three **types** of training:

- I. General and administrative (e.g., management/supervision, quality of worklife, orientation, communication skills, budgeting/financial, SSC San Diego-specific common computer applications.) The Training Office manages, coordinates, and implements Type I training.
- II. Higher-level software engineering, software project management, and software process improvement (e.g., software project management, software management for executives, peer review workshop, train the trainer.) SEPO manages, coordinates, and implements Type II training.
- III. Software technical skills specific to a project or department (e.g., programming languages, specific tools, tailored processes, lab procedures, project-unique topics.) Departments/projects manage, coordinate, and implement Type III training.

Entry Criteria/Inputs:

- Software Engineering Process Policy
- TP personnel trained in their duties
- Project Managers oriented in the TP Process

Exit Criteria/Outputs:

- Trained individuals
- Training Plans for all three training types

Date: 30 Aug 2000

• Updated training materials and databases

Roles:

- Project managers: determine training needs.
- TP Manager: Oversees training process, assigns resources.
- TP Coordinator: Monitors this process: develops plans, supervises implementers.
- TP Implementers: develop or acquire curriculum, prepare training materials, facilitate training logistics, conduct training, maintain records.
- Software Quality Assurance: Reviews Training Program effectiveness.

Assets/References:

- a. Capability Maturity Model for Software, Ver. 1.1, SEI Technical Report, CMU/SEI-93-TR-24, 1993.
- b. Software Engineering Process Policy, SPAWARSYSCENINST 5234.1
- c. SSC-SD Training Reference Guide, Training Office D0207, SSC San Diego.
- d. Software Engineering Training Program Process, SEPO.
- e. Software Engineering Training Plan, SEPO.
- f. Department/Project Training Plan Template, SEPO.

Tasks:

- Conduct training needs analysis
- Create Training Plan
- Design curriculum
- Create/update/acquire training materials
- Pilot and deliver training
- Evaluate delivered training
- Maintain training records
- Improve the TP process

Measures:

- Success of training based on individual job performance, as measured by the students' supervisors.
- Evaluations of training courses, provided by students.
- Hours and costs expended in providing training.

PROCESS STEPS

1. Conduct training needs analysis

Individual Project Managers assess training needs of project personnel (usually in conjunction with Individual Development Plans.) Type I needs are submitted to the Training Office. Type II needs are submitted to the Training Office and SEPO. Type III needs are kept in-house for implementation.

2. Create Training Plan

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Based on the needs analysis received, the TP Manager and Coordinator in each of the three areas of training identify training courses needed, document training decisions, and schedule training courses for an upcoming period (e.g., fiscal year.) The resulting Training Plan covers:

- a. The current training goals and objectives.
- b. The specific training needed and when it is needed.
- c. The training that will be obtained from external sources and training that will be developed or provided internally.
- d. The funding and resources, including staff, tools and facilities, needed to prepare and conduct or procure the training.
- e. The schedule for creating or revising the training courses that will be provided internally.
- f. The schedule for conducting the training, based on the projected need dates and the projected number of students.

Plans for Type I training are addressed at http://iweb.spawar.navy.mil/services/training/training.html and in Reference c. Plans for Type II training are contained in Reference e and at http://sepo.spawar.navy.mil/training.html Reference f is a template for a Project Training Plan.

3. Design curriculum (course description or "flyer")

The TP Coordinator and Implementers determine the format and general scope of training, including:

- a. The training objectives
- b. The intended audience
- c. What preparation is needed by the student before attending
- d. How long the training will take
- e. What the students will learn
- f. Any criteria for completing the training
- g. How the course will be evaluated for effectiveness.

4. Create/update/acquire training products

TP Implementers acquire, create, or update course materials.

Reference c provides course standards and direction on acquiring outside courses.

Reference d includes standards for developing and updating Type II courses.

5. Pilot and deliver training

The TP Implementers:

- a. Pilot new (acquired or developed) or updated courses, if applicable
- b. Prepare for course delivery
- c. Select and enroll students
- d. Process waivers for qualified individuals (Statement signed by individual's manager that they are able to satisfy course objectives; in form of checklist, quiz, interview, or observation summary.)
- e. Deliver scheduled training according to the Training Plan.

6. Evaluate delivered training

TP Implementers collect course evaluations from students for analysis. Informal evaluation or feedback should be collected for informal training sessions.

7. Maintain training records

For each type of training, TP Implementers keep records of student name, email address, student's organization and Code (when taking the course), student's current organization and Code, course taken, and completion date.

Project Managers review these records for training completion and in assignments of staff and management positions.

8. Improve the process

SQA determines if this process is being successfully followed and if the training is meeting the needs of projects. The TP Manager, Coordinator, and Implementers modify the process and training as needed.